Amendments to the Specification

Please replace paragraphs [0138]-[0143] of the specification with the following amended paragraphs [0138]-[0143]:

[0138] FIGS. 21A, B, C and D illustrate an example implementation of the receiver 100. FIG 21A illustrates example implementations of the difference detector 2102~~measuring module 2002~~ and the ADC 2104~~2004~~. FIG. 21B and 21C illustrate example implementations of the equalizer control module 2006. FIG 21D is an example state diagram 2108 for implementing a state machine 2106 illustrated in FIGS. 21B and 21C. Operation of these example embodiments are now described.

[0139] Referring to FIG. 21A, the difference detector 2102~~measuring module 2002~~receives the equalized analog data signal 1906~~104~~. An amplitude module 2101 measures an amplitude of the equalized analog data signal 1906~~104~~. In an embodiment, the amplitude module 2101 determines absolute amplitudes of the equalized analog data signal 1906~~104~~.

[0140] A control logic module 2112 determines whether a portion of the equalized analog data signal 1906~~104~~is a steady state soft portion or a post-transition portion.

[0141] A switching system 2110 directs the amplitudes of the equalized analog data signal 1906~~104~~to a transition path 2114 or a no-transition path 2116, according to controls from the control logic module 2112. In an embodiment, the control logic module 2112 is part of the phase path 704.

[0142] Transition path 2114 and no-transition path 2116 sample and integrate the amplitudes of the equalized analog data signal 1906~~104~~to obtain average values of

post-transition and steady state portions, respectively. A combiner 2118 outputs an average difference 2120 between post-transition and steady state values.

[0143] The average difference 2120 is provided to the ADC 21042~~2004~~, which outputs a digital representation 2122 of the average difference 2120. In an embodiment, the ADC 21042~~2004~~ is implemented as a high/med/low system that compares the average difference 2120 with a plurality of pre-determined values, whereby the ADC 21042~~2004~~ outputs a thermometer code that indicates which, if any, of the plurality of predetermined values are exceeded by the average difference 2120.